

Fig. 2. Sequence of the Ar gene. The sequences of the predicted transcript and protein product famino acid single-letter code) of the Ar Security as abovan. The four cystaten residues making up the potential size-finger domain are circled. Exon 1 must through sunchcided 385 (see oz. 2, from 37 through 989; exon 3, from 990 through 170; exon 4, from 1711 through 1921; exon 5, from 1922 through 2812; exon 6, from 2813 through 272; exon 7, from 272 through 282; exon 15, from 285 through 2729; exon 7, from 285 through 2729; exon 17, from 272 through 282; exon 15, from 285 through 283; e

2) and BC9 (exon 19). It contains the rest of exon 3, exons 4-18, and most of exon 19. The final 83 nucleotides come from genomic clone c.1 and were confirmed by the direct sequencing of the RACE product. The 23-kb BamHI final-net was used to map precisely exons 3-19. The sequences of these exons were also determined in the genomic clones. There were 12 nucleotide differences (resulting in a total of seven amino acid changes) between the genomic sequences and the RT-ECR clone. Since the genomic clones were

obtained from mice of different genetic origins than the RNA

used for RT-PCR, we cannot determine whether these differences arise as a result of PCR amplification or reflect genetic polymorphisms. We have chosen to show the genomic sequences in Fig. 2; future studies will resolve this terms.

The 5' and 3' ends of the message remain somewhat poorly defined. Nuclease protection experiments (see below) imply that the transcription start site must precede the BamHI site that marks the 5' end of the sequence shown Fig. 2. A potential polyadenylylation sequence was identified in the